REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 1, 3, 4, 7-12 and 15-22 are pending in this application and have been rejected. Claim 18 has also been objected to.

Claim 18 has been amended herein. Applicants state that the amendments to these claims add no new matter.

Claim Objections

In the Office Action, the Examiner objected to claim 18 as depending upon canceled claim 6 but, for examination purposes, has considered it dependent upon claim 1. In response, Applicants have amended claim 18 to depend from independent claim 1, and now request withdrawal of the objection.

CLAIM REJECTIONS

35 U.S.C. § 102 Rejections

In the final Office Action, the Examiner has rejected claims 1, 3, 4, 7-12 and 15-22 under 35 U.S.C. § 102(b) as being anticipated by Bartlett (International Patent No. WO 99/00536). Applicants respectfully traverse this rejection.

Applicants previously argued that Bartlett et al. does not even suggest that the disclosed materials could be used as electrode materials in the electrochemical cells of portable electronic devices (PEDs). The Examiner responded that the porous films having a substantially regular structure and uniform pore size taught by Bartlett show improved properties for use in many applications such as batteries, fuel cells etc.

Applicants also previously argued that Bartlett et al. does not teach special energy and power density requirements of a portable electronic device. The Examiner responded that

Bartlett meets all the structural claim limitations, such that it would have been obvious for Bartlett to provide the high power density and energy density that is required by a portable electronic device, i.e., the battery disclosed in Bartlett.

Applicants maintain that the claims are not anticipated by Bartlett et al. In the Amendment filed December 22, 2009, Applicants pointed out that the term "portable electronic device" (PED) is a well known term in the art, meaning any electronic device that includes its own power source so that it can be used without permanent connection to a main electrical supply, such that it is able to be used anywhere (i.e., it is portable). However, contrary to that stated by the Examiner, the term "a PED" does not include a device that consists of a battery by itself, i.e., a power source without the electronic device to be powered. In fact, having a battery does not necessarily mean that a device must be a PED. As would be clear to anyone skilled in the art, the term "battery" is broad, and includes power sources for devices which would certainly not be considered to be "portable electronic devices". Instead, a portable electronic device has particular requirements in terms of power and energy density, and there is no suggestion in Bartlett that the materials disclosed therein would be capable of meeting such requirements, and thus no incentive to construct a "portable electronic device" using them.

Nevertheless, Applicants refer to the Examiner's statement that Bartlett discloses a positive electrode comprising a mesoporous structure having a periodic arrangement of substantially uniformly sized pores, and cites Bartlett at page 7, lines 5-7, where it is stated:

> "Accordingly, by exploiting the rich lyotropic polymorphism exhibited by liquid crystalline phases, the method of the invention allows precise control over the structure of the films and enables the synthesis of well-defined porous films having a long range spatially and orientationally periodic distribution of uniformly sized pores."

However, this passage cited by the Examiner is clearly a general disclosure relating to the films of Bartlett, and is not a teaching to apply such a teaching to an electrode, and certainly not specifically to a positive electrode as claimed.

The Examiner further states that Bartlett discloses that the mesoporous structure of the positive electrode is a metal, such as nickel or nickel alloys, or a metal oxide or hydroxide, and cites Bartlett at page 4, lines 13-23, where it is stated:

"Suitable metals include for example Group IIB, IIIA-VIA metals, in particular zinc, cadmium, aluminium, gallium, indium, thallium, tin, lead, antimony and bismuth, preferably indium, tin and lead; first, second and third row transition metals, in particular platinum, palladium, gold, rhodium, ruthenium, silver, nickel, cobalt, copper, iron, chromium and manganese, preferably platinum, palladium, gold, nickel, cobalt, copper and chromium, and most preferably platinum, palladium, nickel and cobalt; and lanthanide or actinide metals, for example praseodymium, samarium, gadolinium and uranium. The metals may contain surface layers of, for example, oxides, sulphides or phosphides."

The Examiner also cites Bartlett at page 12, lines 17-31, which states:

"Metallic films prepared by the method of the present invention may be expressed by the empirical formula:

MxAh

wherein M is a metallic element, such as a metal from Groups IIB and IIIA-VIA, in particular zinc, cadmium, aluminium, gallium, indium, thallium, tin, lead, antimony and bismuth, preferably indium, tin and lead; a first, second and third row transition metal, in particular platinum, palladium, gold, rhodium, ruthenium, silver, nickel, cobalt, copper, iron, chromium and manganese, preferably platinum, palladium, gold, nickel, cobalt, copper and chromium, and most preferably platinum, palladium, nickel and cobalt; a lanthanide or actinide metal, for example praseodymium, samarium, gadolinium and uranium; or a combination thereof,

x is the number of moles or mole fraction of M,

A is oxygen, sulphur, or hydroxyl, or a combination thereof, and h is the number of moles or mole fraction of A."

The above disclosures are extremely broad and recite a vast range of different metals and metal compounds. In contrast, independent claim 1 as pending in this application requires a very small group of specific metal oxides, hydroxides and oxy-hydroxides to be used. There is absolutely no indication in Bartlett that this very small group of compounds should be selected from the vast lists disclosed in the paragraphs cited by the Examiner.

In addition, not only does independent claim 1 recite a very small group of specific metal oxides, hydroxides and oxyhydroxides, but it also specifies that these must be used as positive electrode materials. The above paragraphs from Bartlett make no mention whatsoever of electrodes, and are certainly not specific to positive electrodes. Thus, it cannot be said that Bartlett discloses the metal oxides, hydroxides and oxy-hydroxides of independent claim 1 as positive electrode materials.

It is perhaps also instructive to note that the same long lists above, which the Examiner uses with reference to the positive electrode, also list palladium without any differentiation,

which is one of the two preferred negative electrode materials of the present invention. This further shows that the paragraphs cited by the Examiner cannot be a teaching to use the listed materials specifically as positive electrode materials.

Furthermore, the Examiner states that Bartlett discloses a negative electrode comprising carbon or palladium, and cites Bartlett at page 12, lines 20-32 and page 10, lines 1-2 for support. However, the passage of Bartlett at page 12, lines 20-32 is the same paragraph that the Examiner uses with respect to disclosure of the positive electrode, and clearly this paragraph cannot be a teaching both to select the claimed metal oxides, hydroxides and oxy-hydroxides as positive electrode materials and to select palladium as a negative electrode material, since the paragraph makes absolutely no differentiation between the listed materials. In addition, the passage of Bartlett at page 10, lines 1-2 contains no mention of electrodes, and certainly no specification of a negative electrode.

Based on the above, it should be clear that Bartlett makes absolutely no distinction between negative and positive electrode materials. Not only that, but Bartlett also provides no incentive whatsoever to select the materials currently listed in independent claim 1 from the vast array of other materials disclosed.

In order to anticipate independent claim 1, Bartlett must provide a clear disclosure of the specific claimed metal oxides, hydroxides and oxy-hydroxides as positive electrode materials together with carbon or palladium as negative electrode materials. Such teaching is clearly not present in Bartlett. Thus, since the claimed specific combination is not disclosed or suggested by Bartlett, independent claim 1 is not anticipated, and nor are they obvious.

Claim 3-4, 7-12 and 15-22 are dependent upon independent claim 1 and therefore include all the limitations thereof. The combination of Bartlett et al. and Attard et al., which does not render obvious independent claim 1, also does not render dependent claim 2-22 obvious.

Conclusion

In view of the foregoing amendments and remarks, Applicants assert that the pending claims are allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,

Morey B. Wildes
Attorney/Agent for Applicant(s)
Registration No. 36,968

Dated: March 4, 2011

Pearl Cohen Zedek Latzer, LLP
1500 Broadway, 12th Floor
New York, New York, 10036
Tel: (646) 878-0800
Fax: (646) 878-0801